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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,096	06/30/2003	Michael E. Weinstein	017750-584	8095

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EXAMINER

TAN, VIBOL

ART UNIT PAPER NUMBER

2819

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,096

Applicant(s)

WEINSTEIN, MICHAEL E.

Examiner

Vibol Tan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-19 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 3,10,11 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/30/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 3, 4, and 10 are objected to because of the following informalities:
change "the means for tuning out" to "the means for countering" in order to avoid lacking of antecedent basis. Appropriate correction is required.
2. In claim 6, change the microstrip ground" to "a microstrip ground".
3. In claim 21, change "according to claim 21" to "according to claim 20).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4-6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan et al. (U. S. PAT. 6,201,453).

In claims 1 and 8, Chan et al. teaches all claimed features in Figs. 3-5, a microstrip-waveguide transition for transmission of electromagnetic energy comprising : a waveguide (31) having an open end (as shown); a dielectric substrate (36) attached to the open end; a microstrip probe (39) on the dielectric substrate, wherein a capacitive susceptance across the open end when the open end is exposed to electromagnetic energy (inherent); and means (impedance matching; col. 3, line 35) for countering the capacitive susceptance with inductive susceptance, wherein the dielectric substrate (36) is attached to the open end with a conductive adhesive (inherent).

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In claim 2, Chan et al. further teaches the microstrip-waveguide transition according to claim 1, wherein the dielectric substrate (36) has a first side surface attached to the open end (as shown) and a second side surface on which the microstrip probe is positioned (as shown).

In claims 4 and 9 Chan et al. further teaches the microstrip-waveguide transition according to claim 2, wherein the means for countering the capacitive susceptance with inductive susceptance includes a backshort cap (34) attached to the open end; and wherein the backshort cap is attached to the open end with a conductive adhesive (welding or soldering; col. 3, line 10).

In claim 5, Chan et al. further teaches the microstrip-waveguide transition according to claim 4, wherein the backshort cap is attached to the second side surface with an adhesive (welding or soldering; col. 3, line 10) to form a hermetic seal between the backshort cap and the dielectric substrate.

In claim 6, Chan et al. further teaches the microstrip-waveguide transition according to claim 1, wherein the microstrip ground (col. 1, line 25) is conductively connected to the waveguide.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. in view of Iizuka et al. (U. S. PAT. 6,580,335).

In claim 7, Chan et al. teaches all claimed features the microstrip-waveguide transition according to claim 1; with the exception of teaching the corners of the dielectric substrate and the open end are in alignment. However, Iizuka et al. teaches in Figs. 3 and 4C, the corners of the dielectric substrate and the open end are in alignment.

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teachings of Iizuka et al. and the teachings of Chan et al., in order to provide a microstrip-waveguide transition having a structure which prevents variation of properties.

In claim 20, Chan et al. teaches all claimed features in Figs 3-5, a microstrip-waveguide transition comprising: a waveguide (31) having an open end; a dielectric substrate (36) having a first side surface (side opposite to 39) attached to the open end; a microstrip probe (39) on a second side surface (side of 36) of the dielectric substrate; and a backshort cap (34) attached to the second side surface; with the exception of teaching wherein corners of the waveguide and backshort cap are in alignment and the dielectric sheet is arranged between the waveguide and backshort cap.

In claim 21, Chan et al. further teaches the microstrip-waveguide transition according to claim 20, comprising: a means (impedance matching; col. 3, line 35) for tuning out capacitive susceptance between the open end and the microstrip probe with inductive susceptance.

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8. Claims 3, 10, 11, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 12-19 appear to comprise allowable subject matters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811.


The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vibol Tan

Primary Examiner, AU 2819



VIBOL TAN
PRIMARY EXAMINER